

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A wiring board obtained by filling a copper paste in a via hole formed on a ceramic green sheet and firing it to form an insulating layer and a via conductor, the copper paste comprising a copper powder, an organic vehicle ~~and at least one selected from the group consisting of:~~ a ceramic particle having an average particle size of 100 nm or less; and an Fe_2O_3 particle, wherein the copper paste comprises from 6 to 20 parts by mass of the organic vehicle per 100 parts by mass of the copper powder.

2. (currently amended): A wiring board obtained by filling a copper paste in a via hole formed on a ceramic green sheet and firing it to form an insulating layer and a via conductor, the copper paste comprising a copper powder, an organic vehicle and a ceramic particle having an average particle size of ~~100 nm~~ 50 nm or less, wherein the copper paste comprises from 6 to 20 parts by mass of the organic vehicle per 100 parts by mass of the copper powder.

3. (currently amended): A wiring board obtained by filling a copper paste in a via hole formed on a ceramic green sheet and firing it to form an insulating layer and a via conductor, the copper paste comprising a copper powder, an organic vehicle and an Fe_2O_3 particle in an amount of from 0.1 to 5.0 parts by mass, wherein the copper paste comprises from 6 to 20 parts by mass of the organic vehicle per 100 parts by mass of the copper powder.

4. (currently amended): The wiring board according to claim 1, wherein the via conductor comprises an inorganic matter comprising constituents of the ceramic particle and having a size of 10 μm or less after firing, said size being a long diameter thereof where the inorganic matter has a spherical or near spherical shape or an equivalent diameter where the inorganic matter has an amorphous shape.

5. (currently amended): The wiring board according to claim 1, wherein the via conductor is exposed to at least one surface of the wiring board and an inorganic matter comprising constituents of the ceramic particle and having a size of 10 μm or less after firing is revealed on the exposed face of the via conductor, said size being a long diameter thereof where the inorganic matter has a spherical or near spherical shape or an equivalent diameter where the inorganic matter has an amorphous shape.

6. (original): The wiring board according to claim 1, wherein the via conductor is exposed to at least one surface of the wiring board and a plating layer is provided on the exposed face of the via conductor.

7. (original): The wiring board according to claim 6, wherein a semiconductor element is mounted on the wiring board and a terminal of the semiconductor element is connected to the via conductor through a joining member.

8. (currently amended): The wiring board according to ~~claims~~ claim 1, wherein the via conductor is constituted as a thermal via working out to a heat conduction path.

9. (currently amended): A wiring board ~~comprising a~~ obtained by filling a copper paste in a via hole formed in a ceramic green sheet and firing to form an insulating layer and a via

conductor, said via conductor having inside thereof an inorganic matter having a size of 10 μm or less after firing, said size being a long diameter thereof where the inorganic matter has a spherical or near spherical shape or an equivalent diameter where the inorganic matter has an amorphous shape.

10. (currently amended): The wiring board according to claim 9, wherein the via conductor is exposed to at least one surface of the wiring board and an inorganic matter having a size of 10 μm or less after firing is revealed on the exposed face of the via conductor.

11. (original): The wiring board according to claim 9, wherein the via conductor is exposed to at least one surface of the wiring board and a plating layer is provided on the exposed face of the via conductor.

12. (original): The wiring board according to claim 11, wherein a semiconductor element is mounted on the wiring board and a terminal of the semiconductor element is connected to said via conductor through a joining member.

13. (original): The wiring board according to claim 9, wherein the via conductor is constituted as a thermal via working out to a heat conduction path.

14. (original): The wiring board according to claim 1, wherein the via conductor comprises less than 5.0 parts by mass of an Fe element per 100 parts by mass of the copper element.

15. (currently amended): A wiring board ~~comprising a~~ obtained by filling a copper paste in a via hole formed in a ceramic green sheet and firing to form an insulating layer and a via conductor, said via conductor having dispersed therein an inorganic matter, wherein in a cross

section in a thickness direction of the wiring board, a total area of the inorganic matter having a particle size of 2 μm or more after firing is 10% or less of the sectional area of the via conductor.

16. (currently amended): A wiring board ~~comprising a~~ obtained by filling a copper paste in a via hole formed in a ceramic green sheet and firing to form an insulating layer and a via conductor, said via conductor having dispersed therein an inorganic matter, wherein in a cross section in a thickness direction of the wiring board, a total area of the inorganic matter having a particle size of 5 μm or more after firing is 5% or less of the sectional area of the via conductor.

17. (currently amended): A wiring board ~~comprising a~~ obtained by filling a copper paste in a via hole formed in a ceramic green sheet and firing to form an insulating layer and a via conductor, said via conductor having dispersed therein an inorganic matter, wherein in a cross section in a thickness direction of the wiring board, a total area of the inorganic matter having a particle size of 10 μm or more after firing is 2% or less of the sectional area of the via conductor.

18. (currently amended): A copper paste comprising a copper powder, an organic vehicle ~~and at least one selected from the group consisting of:~~ a ceramic particle having an average particle size of 100 nm or less; and an Fe_2O_3 particle, wherein the copper paste comprises from 6 to 20 parts by mass of the organic vehicle per 100 parts by mass of the copper powder.

19. (canceled).

20. (original): The copper paste according to claim 18, wherein the ceramic particle is an SiO_2 particle having an average particle size of 100 nm or less.

21. (currently amended): The copper paste according to claim 18, ~~which further comprises a~~ wherein the ceramic particle ~~having~~ has an average particle size of ~~100 nm~~ 50 nm or less.

22. (new): The wiring board according to claim 1, wherein said copper paste does not contain glass frit.

23. (new): A copper paste comprising a copper powder, an organic vehicle and a ceramic particle having an average particle size of 50 nm or less, wherein the copper paste comprises from 6 to 20 parts by mass of the organic vehicle per 100 parts by mass of the copper powder.

24. (new): A copper paste comprising a copper powder, an organic vehicle and an Fe_2O_3 particle in an amount of from 0.1 to 5.0 parts by mass, wherein the copper paste comprises from 6 to 20 parts by mass of the organic vehicle per 100 parts by mass of the copper powder.

25. (new): A copper paste comprising a copper powder, an organic vehicle, a ceramic particle having an average particle size of 100 nm or less and an Fe_2O_3 particle, wherein the copper paste has a viscosity of 5,000 to 1,000,000 poises.

26. (new): A copper paste comprising a copper powder, an organic vehicle and a ceramic particle having an average particle size of 50 nm or less, wherein the copper paste has a viscosity of 5,000 to 1,000,000 poises.

27. (new): A copper paste comprising a copper powder, an organic vehicle and an Fe_2O_3 particle in an amount of from 0.1 to 5.0 parts by mass, wherein the copper paste has a viscosity of 5,000 to 1,000,000 poises.